



ATEC International V&V Program

Joint VV&A Meeting

14-15 Nov 01

Jennifer Chew

**Developmental Test Command
Technology Management Division**

DSN 298-1338/(410)278-1338

Chewj@dtc.army.mil

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Agenda

- **Background**
- **International T&E Steering Committee (ITESC)**
- **International Test Operations Procedures (ITOPs)**
- **M&S and VV&A ITOPs**
- **Summary**

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ITOP Management Structure

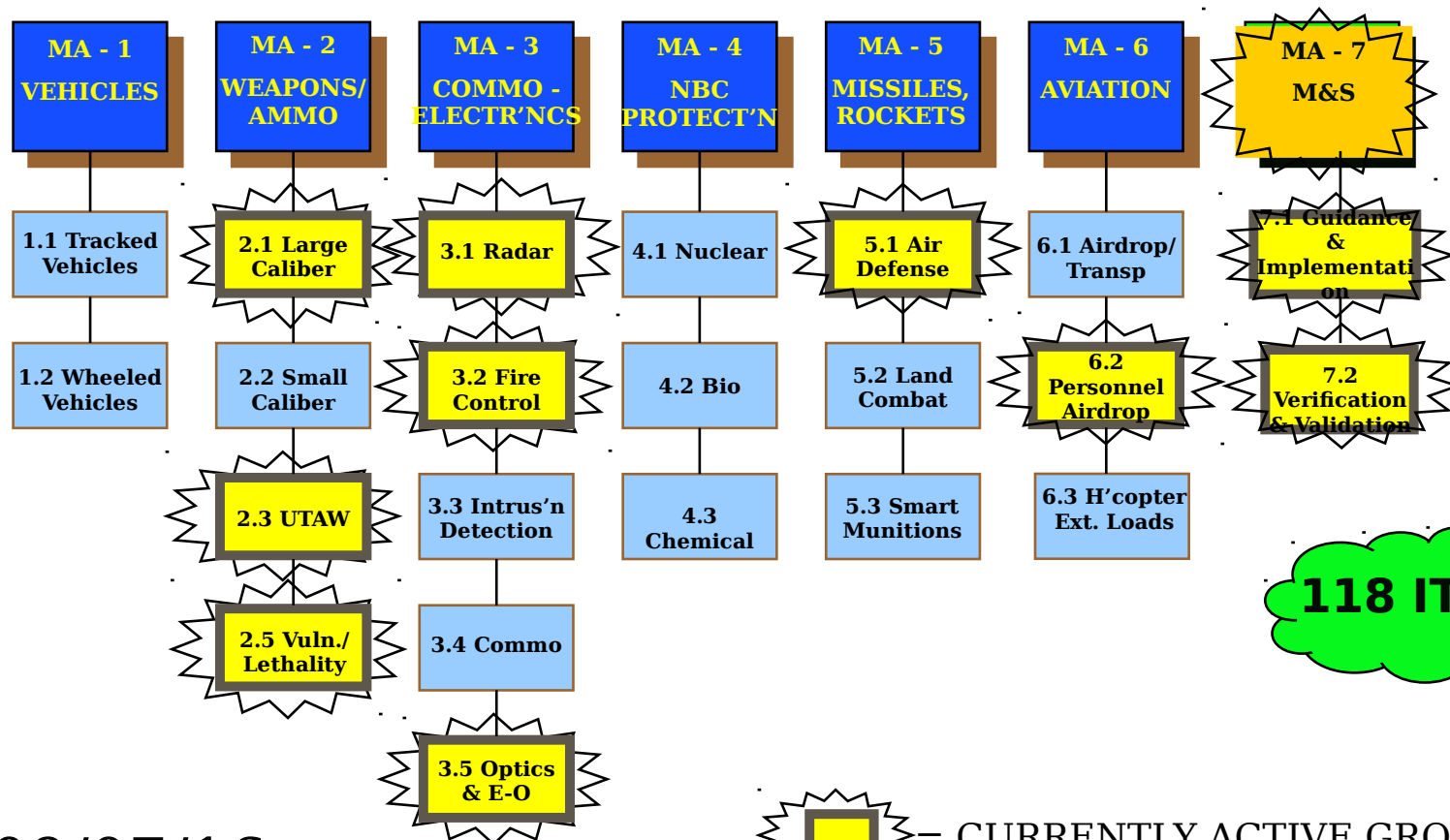


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Four - Nation T&E MOU Organization Structure

FOUR - NATION INTERNATIONAL T&E STEERING COMMITTEE (ITESC)



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 = CURRENTLY ACTIVE GROUPS

Developmental Test Command⁴



ATEC's International Program

Four-Nation
(FR/GE/UK/US)

Int'l Test
Operations
Procedures

Engineers &
Scientists
Exchange
Program

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DEA's

CAN/US TEP

NATO
Committees &
Working Groups
on Safety &
Environmental
Testing



International Test Operations Procedures (ITOPs)



ITOPs ...

- Are international agreements.
- Document T&E procedures for testing military materiel.
- Are cooperatively developed by subject-matter experts of 4-Nations.

**ITOPs capture expertise of
world's testing experts**

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Authority for ITOPs

Memorandum of Understanding (MOU) among the Governments of France, Germany, The United Kingdom and the United States relating to ***The Mutual Acceptance of Test and Evaluation*** for the ***Reciprocal Procurement of Defense Equipment.***

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1983

... December

Developmental Test Command⁷



ITOPs are Unique International Documents



- Focused Specifically On Mutual Acceptance of T&E.
- Level of Detail Designed for Direct Use in T&E - Development of Test Plans and Conduct of Test.
- Four Nation Effort - Pre Development of Pro

DOES NOT DUPLICATE OTHER PROCEDURES, E.G., STANAGS

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ITOP Format

- Scope
- Facilities and Instrumentation
- Required Test Conditions
- Test Procedures
- Data Required
- Presentation of Data



Ref: Publishing and
Printing TOPs and ITOPs,
DTC Reg. 25-30

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MANAGEMENT COMMITTEE - 7 MODELING & SIMULATION



- **ACCOMPLISHMENTS:**

- Extensive exchange among members on applications of M&S in T&E and on activities of NATO and other organizations.
- Received industry briefings and demonstrations on uses of M&S.
- Prepared "Scope of M&S MC-7" for presentation to ITESC.
- Reviewed activities of WGE 7.1 (M&S WGE) and WGE 7.2 (VV&A) and provided guidance.

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WORKING GROUP OF EXPERTS WGE 7.1 M&S GUIDANCE AND IMPLEMENTATION



- **ACCOMPLISHMENTS:**

- Partnered with WGE 3.2 (Fire Control) to develop and test procedures.
- Planned completion of complete draft of new ITOP guidance document August 2000.
- Information presentation at ITEA workshop, Las Cruces, New Mexico, December 1999.
- Looking ahead to possible guidance document for testers.

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M&S ITOP Format



Paragraphs

- 1. Purpose**
- 2. Scope**
- 3. Background**
- 4. References**
- 5. Explanation of Terms**
- 6. General**
- 7. Simulation Methodology**

Appendices

- A. Acronyms**
- B. Terms/Glossary**
- C. Cost/Benefits Checklist**
- D. Sample Format**

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WORKING GROUP OF EXPERTS 7.2 M&S VV&A



- **ACCOMPLISHMENTS:**

- Each nation wrote assigned sections of the draft VV&A ITOP.
- Refining the draft VV&A ITOP for ratification.
- Will be producing three language versions.
- Significant work still to be accomplished:
 - Detail procedures.
 - Refine Credibility Template or Workbook for capturing VV&A information .
 - Qualify and quantify “Levels of Credibility.”
 - Identify M&S Tools and Resources.

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VV&A ITOP Format



1. GENERAL

1.1 Purpose

1.2 Scope

1.3 Background

2. INTRODUCTION

2.1 Applicability

2.2 Definitions and Anatomy

2.3 Verification and Validation

2.4 Concepts and Credibility Template

2.5 Roles and Responsibilities Arguments & evidence

3. PROCEDURES

3.1 Pre-requisites

3.2 What to do to be compliant

3.3 Deliverables to be compliant

4. IMPLEMENTATION

4.1 Selection of levels

4.2 Credibility planning

4.3 Providing Evidence

5. DOCUMENTATION

5.1 Transfer Report

5.2 Credibility Workbook

5.3 Acknowledgements

Appendix A Credibility Workbook

B Credibility Levels -

C Guidance - Methods and Tools

D Standards and References

E Glossary and Definitions

F Acronyms

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Summary

- **ATEC has an extensive international cooperation network and history.**
- **International cooperation has produced valuable results.**
- **Looking forward to additional partnerships.**
- **Our test procedures facilitate acquisition reform**
- **Frequent interchange among test engineers promote technology transfer and bring testing to U.S.**
- **Several new efforts on-going.**

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